



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,171	03/10/2004	Dean E. Cropper	CRP002	3497
50571	7590	03/13/2012		
THE HARRIS FIRM 922 N STREET, NW STE. 101 WASHINGTON, DC 20001			EXAMINER NELSON, KERI JESSICA	
			ART UNIT 3772	PAPER NUMBER
			NOTIFICATION DATE 03/13/2012	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

RON@HARRISPATENTS.COM

Office Action Summary**Application No.**

10/796,171

Applicant(s)

CROPPER, DEAN E.

Examiner

KERI J. NELSON

Art Unit

3772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-29 and 32-40 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-29 and 32-40 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Thirdperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

This Office action is based on the arguments filed November 4, 2011 with a request for continued examination of application 10/796,171. Claims 1-29 and 32-40 are currently pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 4, 2011 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-8, 13-17, 19-21, 26-29, 32-34, 36, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Labour et al. (US Patent 4,445,505).

4. Regarding claims 1, 15, and 32-34, Labour discloses a knee orthosis (10) comprising a medial tracking member (36, 38) that operatively fits along a lateral side of, and provides medial traction to, a patella having a patellafemoral articular tissue and a concentrated elastic traction member (80) that operatively fits over, and provides medial and inward pressure against, a patella, wherein the traction member (80) is capable of providing a concentrated compressive

force against the patella when in use thereby increasing the contact surface area between the patellofemoral articular tissue and an associated femoral trochlear groove.

5. Regarding claims 2 and 16, note that the pressure provided by the traction member (80) is capable of being applied through an intermittent and progressively increased tightening of the traction member by adjusting the position of the free end of traction member (80) relative to member (92) (Fig. 2).
6. Regarding claims 3 and 17, note that the traction member (80) directly overlays the patella and the medial tracking member so that medial traction can be placed on the patella.
7. Regarding claims 5, 19, and 36, note that the traction member (80) is adjustable to increase or decrease an amount of inward pressure.
8. Regarding claims 6, 20, and 37, note that the traction member (80) is capable of providing a continuous compressive force against the patella throughout a full range of extension motion of an associated knee.
9. Regarding claims 7 and 21, note that the continuous compressive force can be the same throughout the extension motion.
10. Regarding claim 8, note that the continuous compressive force increases throughout the extension motion.
11. Regarding claim 13, note that the members (36, 38) are raised member.
12. Regarding claims 14 and 26, note that the traction member (80) comprises an elastic, adjustable strap.
13. Regarding claims 27, note that the device of Labour teaches the recited steps of applying the medial tracking member (36, 38) that operatively fits along a lateral side of, and in doing so providing medial traction to a patella having patellofemoral articular tissue; and applying an concentrated elastic traction member (80) that operatively fits over, and in doing so

would provide medial and inward pressure against, the patella; wherein the inward tracking member (80) would actively provide a compressive force against the patella when in use, thereby increasing the contact surface area between the patellofemoral articular tissue and an associated femoral trochlear groove.

14. Regarding claim 28, note that if desired by a wearer, when the position of traction member (80) is adjusted, the inward pressure is capable of being applied through an intermittent and progressively increased tightening of the inward tracking member.

15. Regarding claim 29, note that if desired by a wearer, the medial traction applied through the intermittent and progressively increased tightening of the traction member (80) would increasingly stretch lateral patellar connective tissue over time.

16. Claims 1-8, 13-21, 26-29, 32-37, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Lehman (US Patent 3,804,084).

17. Regarding claims 1, 15, and 32-34, Lehman teaches a medial tracking member (60, 62) operatively fits along a lateral side of, and capable of providing medial traction to, a patella having patellofemoral articular tissue and a concentrated traction member (90) that operatively fits over, and capable of providing medial and inward pressure against, the patella; wherein the traction member (90) is capable of actively providing a compressive force against the patella when in use, thereby increasing the contact surface area between the patellofemoral articular tissue and an associated femoral trochlear groove.

18. Regarding claims 2 and 16, note that the provided by the traction member (90) is capable of being applied through an intermittent and progressively increased tightening of the traction member.

19. Regarding claims 3 and 17, note that the traction member (90) directly overlays the patella and the medial tracking member (60, 62) so that medial traction can be placed on the patella.
20. Regarding claims 4, 18, and 35, note that the medial tracking member (60, 62) is adjustable to increase or decrease an amount of medial traction.
21. Regarding claims 5, 19, and 36, note that the traction member (90) is adjustable to increase or decrease an amount of inward pressure.
22. Regarding claims 6, 20, and 37, note that the traction member (90) is capable of providing a continuous compressive force against the patella throughout a full range of extension motion of an associated knee.
23. Regarding claims 7 and 21, note that the continuous compressive force can be the same throughout the extension motion.
24. Regarding claim 8, note that the continuous compressive force increases throughout the extension motion.
25. Regarding claim 13, note that the members (60, 62) are raised member.
26. Regarding claims 14 and 26, note that the traction member (90) comprises an elastic, adjustable strap.
27. Regarding claims 27 and 40, note that the device of Lehman has all structure recited in claim 27 with the medial tracking member (60, 62) and a concentrated elastic traction member (90) wrapped and secured around the knee in a manner similar to the manner in which Applicant's medial tracking member and Applicant's traction member are wrapped and secured around a knee; wherein in applying the device taught by Lehman to a wearer, one would perform the steps of applying the medial tracking member (60, 62) that operatively fits along a lateral side of, and in doing so providing medial traction to, a patella having patellofemoral

articular tissue; and applying the traction member (90) that operatively fits over, and in doing so would provide medial and inward pressure against, the patella; wherein the traction member (90) would actively provide a compressive force against the patella when in use, thereby increasing the contact surface area between the patellofemoral articular tissue and an associated femoral trochlear groove.

28. Regarding claim 28, note that if desired by a wearer, when the position of traction member (90) is adjusted, the inward pressure is capable of being applied through an intermittent and progressively increased tightening of the traction member.

29. Regarding claim 29, note that if desired by a wearer, the medial traction applied through the intermittent and progressively increased tightening of the traction member (90) would increasingly stretch lateral patellar connective tissue over time.

Claim Rejections - 35 USC § 103

30. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

31. Claims 4, 9-12, 18, 22-25, 35, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Labour et al. (US Patent 4,445,505) in view of Cawley et al. (US Patent 6,551,264) and/or Lehman (US Patent 3,804,084).

32. Note the comments above for the teaching of Labour et al. Cawley teaches a knee orthosis comprising adjustable medial tracking member (76, 74, 78, 80) (Fig. 1) that operatively fits along a lateral side of, and capable of providing medial traction to a patella having patellofemoral articular tissue, and teaches the use of polycentric hinge (Fig. 5). Lehman

teaches a knee support comprising an adjustable medial tracking member (60, 62) that operatively fits along a lateral side of, and capable of providing medial traction to a patella having patellofemoral adicular tissue. In view of the teachings of Cawley and/or Lehman, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device of Labour by providing a polycentric hinge to assist in the motion or bending of the knee, and by providing adjustable medial tracking member in order to adjust the degree of media traction placed on the patella. The provision for a polycentric hinge for a knee brace is well known in the art, and does not provide any unobvious result, and therefore is not patentable over prior art as evidenced by the polycentric hinges taught in US Patents 4,781,179 and 4,572,170.

33. Regarding claims 4, 18, and 35, note that the medial tracking member (76, 74, 78, 80) of Cawley is adjustable to increase or decrease an amount of medial traction.

34. Regarding claims 9-11 and 22-24, note Figure 5 of Cawley. The provision for a polycentric hinge for a knee brace is well known in the art, and does not provide any unobvious result, and therefore is not patentable over prior art as evidenced by the polycentric hinges taught in US Patents 4,781,179 and 4,572,170.

35. Regarding claims 12 and 25, note the elastic sleeve (12) of Labour, and note the member (44) of Cawley.

36. Regarding claims 38 and 39, note the comments with respect to the claims above.

37. Regarding claim 40, note that the device of Labour, Cawley, and/or Lehman, in combination, teaches the recited steps.

38. Claims 9-12, 22-25, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehman (US Patent 3,804,084) in view of Cawley et al. (US Patent 6,551,264).

39. Note the comments above for the teaching of Lehman. Cawley teaches a knee orthosis with bicentric hinge (note Fig. 5 of Cawley). In view of this teaching of Cawley, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device of Lehman, by providing polycentric hinge to assist in the motion or bending of the knee. The provision for a polycentric hinge for a knee brace is well known in the art, and does not provide any unobvious result, and therefore is not patentable over prior art as evidenced by the polycentric hinges taught in US Patents 4,781,179 and 4,572,170.

40. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Labour et al. (US Patent 4,445,505) in view of Lamping et al. (US Patent 6,485,448).

41. Note the comments above for the teaching of Labour. Lamping teaches rubber tubing (8) covered with elastic material (9) (Fig. 4; column 3, lines 40-54). In view of the teaching of Lamping, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide this structure for the device of Labour to provide more stable or rigid support for the medial tracking member (36, 38).

42. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lehman (US Patent 3,804,084) in view of Lamping et al. (US Patent 6,485,448).

43. Note the comments above for the teaching of Lehman. Lamping teaches rubber tubing (8) covered with elastic material (9) (Fig. 4; column 3, lines 40-54). In view of the teaching of Lamping, it would have been obvious to one ordinary skill in the art at the time the invention was

made to provide this structure for the device of Lehman to provide more stable or rigid support for the medial tracking member (60, 62).

Response to Arguments

44. Applicant's arguments filed November 4, 2011 have been fully considered but they are not persuasive.

45. In response to Applicant's argument that neither Labour nor Lehman teach a strap that would be recognized by one having ordinary skill in the art as being a "concentrated medial and inward traction member" as the term "traction" is defined as "process of drawing or pulling", the examiner disagrees. In the instant case, both Labour and Lehman teach elastic members which are each capable of providing medial and inward pressure against a patella of a knee when in use such that the patella may be drawn or pulled. Further, the straps themselves are capable of being drawn or pulled. Because the elastic member (80) taught by Labour extends laterally to medially across a patella, it will clearly provide medial traction to the patella as well as apply an inward compressive force over the patella. The elastic member (90) taught by Lehman extends from one side of the device to the other across a patella and would be capable of applying medial traction to the patella depending on the orientation of the device or the leg of the user on which the device is worn as well as applying an inward compressive force over the patella. It is noted that the term "traction" as it is used with respect to the "member" component of the orthosis merely provides functionality to the member but *does not impart any specific structure* to the member that would differentiate it over the prior art as both Labour and Lehman teach elastic members capable of providing medial traction to the patella as well as apply an inward compressive force over the patella. A recitation of the intended use of the claimed invention *must result in a structural difference* between the claimed invention and the prior art in order to

patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Applicant has not supplied any arguments that the structure of the straps taught by Labour or Lehman is different than the structure of the claimed "concentrated medial and inward traction member" or how the structure of the straps would be incapable of providing "concentrated, medial and inward pressure against the patella" and "a compressive force against the patella, thereby increasing the contact surface area between the patellofemoral articular tissue and an associated femoral-trochlear groove" as recited in the claims.

46. In response to Applicant's assertion that most knee braces the prior art teach a protective nest or opening about the wearer's patella, it is noted that the features or absence of features upon which Applicant relies (i.e., protective nest or opening) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KERI J. NELSON whose telephone number is (571)270-3821. The examiner can normally be reached on Monday - Thursday, 9am-4pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco, can be reached on 571-272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KJN
/KERI J NELSON/
Examiner, Art Unit 3772
3/5/2012

/Patricia Bianco/
Supervisory Patent Examiner, Art Unit 3772